

**ABSTRACT**

A disposable high density optically readable polydeoxynucleotide array with integral fluorescence excitation and fluorescence emission channels is described. The compact array size allows integration into several types of interventional devices such as catheters, guidewires, needles, trocars and may be used intraoperatively. Highly sensitive monitoring of the metabolic and disease pathways of cells *in vivo* under varying chemical, genetic and environmental conditions is afforded.

458tpl1002/54.A715173-1

458tpl1002/54.A715173-1